



WITHDRAWAL AND PREPARATION OF SAMPLES FOR LABORATORY FAT ANALYSIS

(Ground, linked, and other non-canned products)

Purpose

This instruction defines the Meat Grading and Certification (MGC) Branch procedures for the selection and preparation of samples for laboratory fat analysis.

Policy

It is the policy of the MGC Branch to always select samples in a statistically sound manner, maintain sample integrity, and prepare samples for laboratory analysis in accordance with procedures approved by the Association of Official Analytical Chemists (AOAC).

Procedures

Contractors Will:

1. Provide lab sample jars capable of preventing loss or gain of moisture. Jars **must** meet the following specifications:
 - a. Polypropylene white (or clear) 6-ounce (70mm) jar.
 - b. Lid can be metal or plastic and must be a screw-on type.
2. Provide appropriate facilities and preparation equipment for preparing samples that includes:
 - a. For USDA purchases, a commercial Food Processor approved by the AOAC (i.e., Robot Coupe or equivalent must be used). **Note:** All fat samples not prepared using an AOAC food processors or equivalent will be subject to a \$45.00 per sample processing fee by the AMS Laboratory.
 - b. Household spatula, plastic or rubber, with a 2-inch by 4-inch blade.
 - c. Plastic bags, knives, etc.
3. Provide adequate and secure freezer storage facilities for original and reserve samples during production.
4. Provide a plant employee to perform the sampling and sampling preparation procedures, and to operate and clean the food processor. MGC Branch employee will closely monitor this process.
5. Pay for all costs associated with the laboratory analysis.

Assigned MGC Branch Employees Will:

1. Randomly select a minimum of a 2-pound sample from each of 4 randomly selected, filled shipping containers. (Larger samples may be required depending upon the model of AOAC-approved food processor used.)
2. Maintain absolute identity and security of samples by visual control or under either seal or lock at all times.

"The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (VOICE and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW., Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer."



3. Monitor preparation of the four samples.
4. Monitor placement of at least 2 pounds of sample material into the processor bowl.
5. Ensure that the sample material on the inner side wall and bottom of bowl are incorporated into the sample. Plant employee must exercise sufficient care to ensure a uniform distribution of fat and connective tissue by using the spatula to remove fat from the inside surface of the bowl and the connective tissue from around the blades.
6. Instruct the plant employee to interrupt processing and press the sample to the bottom of the bowl with the spatula and blend uniformly, if the sample consolidates as a ball above the blades.
7. Ensure that processing times, temperatures, and food processor speeds, once established, are documented in the Quality Manual since sample-processing methods may be different from plant to plant in obtaining a homogeneous mixture.
8. Ensure the bowl and blades have been thoroughly washed between each of the four samples.

WARNING!! Do not remove the cutter bowl lid or cutter bowl from base until motor has come to a full stop. Do not allow plant employee to put hand, finger, or any object into bowl while motor is running. Always have the plant employee unplug appliance before servicing or cleaning.

9. Ensure that jars are filled not less than $\frac{1}{2}$ or not more than $\frac{2}{3}$ full of prepared sample to facilitate the mixing of samples in lab jars by AMS Science and Technology personnel. Place prepared sample into each of the 3 lab sample jars designated and labeled as Lab Original, Reserve, and Vendor. **Do not tape the lid closed or apply a shield stamp to the lid.**
10. Complete the Sample Label Sticker (LS Form 108 or equivalent) and attach to the applicable lab sample jars for each designation.
11. Offer the vendor sample to the vendor after completion of the production lot. It is not necessary to place the vendor samples in a jar unless requested by the vendor.
12. Complete the MGC 110 electronic template located at <\\sdenvls0000a\weblinks\downloads\templates2000.htm>. Examples of a blank and completed MGC 110 are attached.
13. Use the Official USDA Meat Grading Sample Bag to secure the original and reserve samples. The bag consists of two compartments (one for the Lab form MGC-110 and one for the samples). Follow the step-by-step instructions printed on the bag. Print the number of the Official Sample Bag on the Lab form (attached). **The original samples must be solidly frozen prior to mailing. Sample bags must be secured at all times and must never come in direct contact with dry ice.**
14. Place the bag into a FreezSafe insulated container (made by Polyfoam Packers Corporation) or equivalent container, with dry ice or frozen refrigerant ice packs. The contractor will provide containers. Fat samples from more than one production lot may be packed together. The Official USDA Meat Grading Sample Bag **MUST NOT** come in direct contact with dry ice. Dry ice will



react with the bag causing the words "VOID Tampering Detected" to appear. Wrapping in paper towels, butcher paper, or similar materials will suffice.

15. **Not use shield stamp on outside of shipping containers.** Ship using only a guaranteed next day delivery (not 2-day delivery) carrier. Plant personnel will provide return address and postage labels so shipping containers will be returned via next day delivery to the applicant.
16. Ship each sample to ensure that the lab will **not** receive the samples on a Saturday, Sunday, Holiday, or non-workday.
17. Assure all fat samples are shipped to the appropriate lab:

Plants East of the Mississippi River	Plants West of the Mississippi River
USDA, AMS, Science and Technology	USDA, AMS, Science and Technology
610 North Main Street	107 South 4 th Street
Blakely, Georgia 31723	Madill, Oklahoma 73446
Phone (912) 723-4570	Phone (580) 795-5615
Fax (912)723-3294	Fax (405) 795-3645

18. Place reserve samples in a secure freezer, and retain until needed. If not utilized, return to vendor. Reserve samples are to be used for analysis only when:
 - a. The original is lost.
 - b. The laboratory cannot analyze the original sample.
 - c. Authorized by the purchaser.

When the reserve sample is analyzed, the results will be final.

Results and Recordkeeping

1. Each laboratory will Email the results to a designated Area and Office of Field Operations employee, who will be responsible for disseminating results in a timely manner to the contractor.

Larry R. Meadows, Chief
Meat Grading and Certification Branch
Livestock and Seed Program

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURE MARKETING SERVICE LIVESTOCK AND SEED PROGRAM		DATE SAMPLED		SAMPLE BAG NUMBER		
LABORATORY SAMPLING FORM FOR MEAT PRODUCTS		DATE MAILED		PRODUCTION CERTIFICATE NO.		
		DATE VENDOR NOTIFIED OF RESULTS		SPECIFICATION / NAME OF PRODUCT/COMMODITY CODE		
APPLICANT NUMBER				ANALYSIS REQUESTED ("X" APPLICABLE BOXES)		
APPLICANT		ESTABLISHMENT NO.		FAT		
				MOISTURE		
RECEIVER OR BUYER				SALT		
				OTHER (SPECIFY)		
SIGNATURE OF PERSON SAMPLING PRODUCT		NAME OF PERSON SAMPLING PRODUCT (<i>PRINT</i>)		ORIGINAL SAMPLE		
				RESERVE SAMPLE		
SEND LABORATORY RESULTS TO : (<i>Name and address</i>)				SAMPLE 1		
				SAMPLE 2		
				SAMPLE 3		
				SAMPLE 4		
				AVERAGE		
				MOISTURE		
SALT						
CONTRACT NO.		LOT NO.	NO. OF UNITS PRODUCED	NO. OF POUNDS		NO. OF SAMPLES
COMMENTS / FINDINGS (RECORD RESULTS HERE FOR ANALYSIS OTHER THAN FAT, MOISTURE, OR SALT)						
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>EQC CODE: _____</p> <p>TIME IN FREEZER: _____</p> <p>RESERVE MAILED: _____</p> <p>SHIPPING DATES: _____</p> <p>_____</p> </div> <div style="width: 45%; text-align: center;"> <p>STORAGE FREEZER: _____</p> <p>_____</p> </div> </div> <div style="margin-top: 20px;"> <p>72 HOUR TEMP CHECK</p> <p>DATE: _____ TEMP. 1 _____</p> <p>EQC CODE: _____ 2 _____</p> <p>TIME: _____ 3 _____</p> </div>						
The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (VOICE and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW., Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.						

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURE MARKETING SERVICE LIVESTOCK AND SEED PROGRAM		DATE SAMPLED 3/1/2001		SAMPLE BAG NUMBER A026687		
LABORATORY SAMPLING FORM FOR MEAT PRODUCTS		DATE MAILED		PRODUCTION CERTIFICATE NO. C-0087973-4		
		DATE VENDOR NOTIFIED OF RESULTS		SPECIFICATION / NAME OF PRODUCT/COMMODITY CODE IMPS 136 A608 GROUND BEEF (FINE) 10 LB CHUBS		
APPLICANT NUMBER 441101234				ANALYSIS REQUESTED ("X" APPLICABLE BOXES)		
APPLICANT ALL AMERICAN MEATS 4501 SOUTH 36TH ST. OMAHA NE. 68107		ESTABLISHMENT NO. 20420		<input checked="" type="checkbox"/>	FAT	
RECEIVER OR BUYER USDA					MOISTURE	
SIGNATURE OF PERSON SAMPLING PRODUCT		NAME OF PERSON SAMPLING PRODUCT (PRINT)			SALT	
		NED WILLIAMS			OTHER (SPECIFY)	
SEND LABORATORY RESULTS TO : (Name and address) WILLARD GOAD - AREA SUPERVISOR USDA - MEAT GRADING AND CERTIFICATION BRANCH 4940 SOUTH 114TH ST. SUITE 3A OMAHA, NE 68137 FAX RESULTS TO : 402-592-7992				<input checked="" type="checkbox"/>	ORIGINAL SAMPLE	
					RESERVE SAMPLE	
				SAMPLE 1		MOISTURE
				SAMPLE 2		
				SAMPLE 3		SALT
				SAMPLE 4		
AVERAGE						
CONTRACT NO. 12-02-1-1234		LOT NO. 061	NO. OF UNITS PRODUCED 1000	NO. OF POUNDS 40,000		
				NO. OF SAMPLES 4		
COMMENTS / FINDINGS (RECORD RESULTS HERE FOR ANALYSIS OTHER THAN FAT, MOISTURE, OR SALT)						
EQC CODE: <u>TE</u> STORAGE FREEZER: <u>U.S. COLD STORAGE</u>						
TIME IN FREEZER: <u>0900</u>						
RESERVE MAILED: _____						
SHIPPING DATES: _____						

72 HOUR TEMP CHECK

DATE: _____ TEMP. 1 _____

EQC CODE: _____ 2 _____

TIME: _____ 3 _____

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MGC-110 (08-2001)

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURE MARKETING SERVICE LIVESTOCK AND SEED PROGRAM		DATE SAMPLED 3/1/2001		SAMPLE BAG NUMBER A026689	
LABORATORY SAMPLING FORM FOR MEAT PRODUCTS		DATE MAILED		PRODUCTION CERTIFICATE NO. C-0087973-4	
		DATE VENDOR NOTIFIED OF RESULTS		SPECIFICATION / NAME OF PRODUCT/COMMODITY CODE IMPS 136 A608 GROUND BEEF (FINE) 10 LB CHUBS	
APPLICANT CODE 441101234				ANALYSIS REQUESTED ("X" APPLICABLE BOXES)	
APPLICANT ALL AMERICAN MEATS 4501 SOUTH 36TH ST. OMAHA NE. 68107		ESTABLISHMENT NO. 20420		FAT	
RECEIVER OR BUYER USDA				MOISTURE	
SIGNATURE OF PERSON SAMPLING PRODUCT		NAME OF PERSON SAMPLING PRODUCT (PRINT)		SALT	
		NED WILLIAMS		OTHER (SPECIFY) *SEE COMMENTS	
				ORIGINAL SAMPLE	
				RESERVE SAMPLE	
SEND LABORATORY RESULTS TO : (Name and address) WILLARD GOAD - AREA SUPERVISOR USDA - MEAT GRADING AND CERTIFICATION BRANCH 4940 SOUTH 114TH ST. SUITE 3A OMAHA, NE 68137 FAX RESULTS TO : 402-592-7992				SAMPLE 1	
				SAMPLE 2	
				SAMPLE 3	
				SAMPLE 4	
				AVERAGE	
CONTRACT NO. 12-02-1- 1234		LOT NO. 061	NO. OF UNITS PRODUCED 1000	NO. OF POUNDS 40,000	NO. OF SAMPLES 1
COMMENTS / FINDINGS (RECORD RESULTS HERE FOR ANALYSIS OTHER THAN FAT, MOISTURE, OR SALT)					
* STANDARD PLATE COUNT _____ TOTAL COLIFORMS _____ E. COLI _____ SALMONELLA _____ COAGULASE POSITIVE STAPHYLOCOCCI _____					

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